UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,479	03/23/2004	Takao Tsuruoka	01064D/LH	3058

1933   7590   01/02/2008
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC
220 Fifth Avenue
16TH Floor
NEW YORK, NY 10001-7708

EXAMINER
CUTLER, ALBERT H

ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
01/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/807,479	TSURUOKA ET AL.
	Examiner	Art Unit	
	Albert H. Cutler	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _26 October 2007_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-3 and 5_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-3 and 5_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All   b) ☐ Some * c) ☐ None of:

　　　　1. ☐ Certified copies of the priority documents have been received.

　　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)　　　　　Office Action Summary　　　　　Part of Paper No./Mail Date 20071218

DETAILED ACTION

1.   This office action is responsive to communication filed on October 26, 2007.

Claims 1, 2, 3 and 5 are pending in the application. Claim 4 has been cancelled by

Applicant.

Response to Arguments

2.   Applicant's arguments with respect to claims 1, 2, 3 and 5 have been considered

but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

        1.   Determining the scope and contents of the prior art.
        2.   Ascertaining the differences between the prior art and the claims at issue.
        3.   Resolving the level of ordinary skill in the pertinent art.
        4.   Considering objective evidence present in the application indicating
                obviousness or nonobviousness.

5.   Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Fukushima et al.(US 5,715,377) in view of Kuwata et al.(US 2002/0025079).

        Consider claim 1, Fukushima et al. teach:

An image processing apparatus(see figures 1 and 17) for adjusting a gradation range(see figure 11) of an input image(101, figure 1), comprising:

photographing condition estimation means(103, 104, 105, and 106) for estimating a photographing condition of the input image(See column 12, line 53 through column 13, line 17. The photographing condition estimating means estimates if the input image was taken with back lighting and also estimates the people presence in the image.);

selection means(64A) for selecting a gradation table on the basis of the photographing condition(column 12, lines 12-50);

characteristic amount calculation means(106) for calculating a characteristic amount with respect to the input image(The characteristic amount calculating means(106) calculates a characteristic amount of reliability with respect to the input image, column 13, lines 8-17, column 23, lines 10-30.);

gradation conversion curve calculation means for calculating a gradation conversion curve on the basis of the gradation table(column 24, line 14 through column 25, line 30, especially column 25, lines 21-23. The original gradation table is modified based on a degree(i.e. a weighting) to generate a gradation correction table suited to the input image. See figure figures 14A and 14B.); and

conversion means(6, figure 17) for performing gradation conversion using the gradation conversion curve(column 24, lines 26-48) so as to perform gradation correction on the input image(101) to adjust the gradation range to a predetermined gradation range(See column 13, lines 14-17, column 23, line 10 through column 25, line

30, figures 16A-16E. The gradation correction means generates a gradation correction curve to correct an input image based on the degree of backlighting, the degree of people in the image, and the degree of reliability.).

However, Fukushima et al. do not explicitly teach that selection means selects a weight coefficient, a histogram generation means for generating a weighting histogram related to the characteristic amount on the basis of the arrangement of the weight coefficient, or that the gradation conversion curve is calculated on the basis of the histogram.

Kuwata et al. are similar to Fukushima in that Kuwata et al. teach of an image processing apparatus(paragraph 0002) that performs gradation correction(paragraphs 0333-0362) on an input image(paragraphs 0336-0337). Kuwata et al. are further similar in that a photographing condition such as whether the image is a portrait or a landscape image is taken into account when performing the gradation correction(see SD180-SD196, figure 45, figure 46, paragraph 0342).

However, in addition to the teachings of Fukushima, Kuwata et al. teach that a selection means selects an arrangement of a weight coefficient(See Figure 45, SD190-SD196, paragraphs 0337, 0343-0347, 0357. A weight coefficient "k" is selected based on characteristics of the image.), a histogram generation means for generating a weighting histogram related to the characteristic amount based on the arrangement of the weight coefficient(See SD310, figure 48, paragraphs 0351 & 0359. A histogram can be generated based on a selected weight coefficient, or based on an automatically calculated weight coefficient(i.e. one related to the characteristic amount).), and that the

gradation conversion curve is calculated based on the histogram(A luminance

conversion table(figure 16) for generating the gradation curve is generated according to

the weighted histogram, paragraph 0359.).

Therefore, it would have been obvious to a person having ordinary skill in the art

at the time of the invention to have the selection means taught by Fukushima et al.

select a weighting coefficient with which to create a histogram used in the generation of

the gradation conversion curve as taught by Kuwata et al. for the benefit that optimum

image processing can be performed by permitting flexible evaluation not limited to just

one criterion, but rather tailored to the specific photographed image(Kuwata,

paragraphs 0357 and 0361).

Consider claim 2, and as applied to claim 1 above, Fukushima et al. further

teach:

the photographing condition estimation means(103, 104, 105, and 106) estimates

the photographing condition based on at least one of photometric information(The

photographing condition estimating means estimates a photographing condition on the

basis of brightness(i.e. photometric information), column 12, line 12 through column 13,

line 17.).

Consider claim 5, and as applied to claim 1 above, Fukushima et al. further teach

that the gradation correction comprises reducing the gradation range(See figure 14B,

column 11, lines 15-30. The corrected gradation range indicated by curve 53 is clearly

reduced when compared to the un-corrected gradation range shown in curve 52.).

6.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Fukushima et al. in view of Kuwata et al. as applied to claim 1 above, and further in view

of Silverbrook(US 2004/0032524) and Haruki et al.(US 4,969,045).

Consider claim 3, and as applied to claim 1 above, Fukushima et al. further

teach:

the photographing condition estimation means(103, 104, 105, and 106)

comprises:

object distribution estimation means(104) for estimating at least one of a type of

object distribution of an entire screen from the photometric information(See column 12,

line 65 through column 13, line 2, column 19, line 10 through column 23, line 9. The

distribution of people(i.e. a type of object) within an image(i.e. an entire screen) is

estimated.); and

integration means(105) for integrally estimating the photographing condition by

combining the photometry information(108) and the object distribution(i.e. people

distribution, 109) estimated by the object distribution estimation means(104, see column

23, lines 10-55, figure 10. Four types of photographing conditions are estimated

through the integration of the photometry information and object distribution

information.).

Fukushima et al. also teach that the brightness information obtained can be used

to determine the presence or absence of people within the image(column 12, line 53

through column 13, line 17).

However, the combination of Fukushima et al. and Kuwata et al. does not

explicitly teach of a focal position estimation means for estimating at least one of three

types of focal positions including a scenic photographing operation, a portraiture

photographing operation, and a close-up photographing operation from the focal

information.

Silverbrook is similar to Fukushima et al. in that Silverbrook teaches of a printer

camera(paragraph 0028), which is analogous to the "video printer, etc." taught by

Fukushima et al.(column 12, lines 55-56).

However, in addition to the teachings of Fukushima et al. and Kuwata et al.,

Silverbrook teaches a focal position estimation means(5, figure 1) for estimating at least

one of three types of focal positions(2, 3, and 4, figure 1) including a scenic

photographing operation("landscape", 4), a portraiture photographing operation(3, a

group portrait is shown), and a close-up photographing operation(2) from the focal

information(paragraphs 0032-0033).

Therefore, it would have been obvious to a person having ordinary skill in the art

at the time of the invention to include the focal point estimating means taught by

Silverbrook in the photographing condition estimating means taught by the combination

of Fukushima et al. and Kuwata et al., and more specifically, have the output of the focal

point estimating means taught by Silverbrook input into the integration means taught by

Fukushima et al. for the benefit of aiding in the detection of people within the image(Silverbrook, paragraph 0033), and thereby improving the results of the people presence evaluation and photography condition detection taught by the combination of Fukushima et al. and Kuwata et al.

However, the combination of Fukushima et al., Kuwata et al. and Silverbrook does not explicitly teach that object distribution estimation means estimates two further types of object distribution including a center focus, and a central portion.

Haruki et al. is similar to Fukushima et al. in that Haruki et al. teach of an image processor(see figure 1) which contains a gradation correction section(302, figure 1).

However, in addition to the teachings of Fukushima et al., Kuwata et al. and Silverbrook, Haruki et al. teach that an object distribution estimation means estimates two further types of object distribution(see figures 2 and 12) including a center focus(A1, figure 12), and a central portion(A2, figure 12, column 8, lines 5-46).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention of incorporate center focus distribution estimation and central portion distribution estimation as taught by Haruki et al. in the object distribution estimation means taught by the combination of Fukushima et al., Kuwata et al. and Silverbrook for the benefit of preventing an under- and/or over-exposed image due to the fact that images can be brighter or darker in the center when compared to the peripheral portion(Haruki et al., column 2, lines 19-37).

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert H. Cutler whose telephone number is (571)-270-1460. The examiner can normally be reached on Mon-Fri (7:30-5:00).
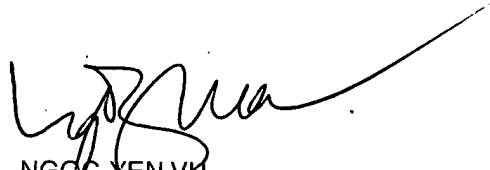
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571)-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

NGOC-YEN VU
SUPERVISORY PATENT EXAMINER